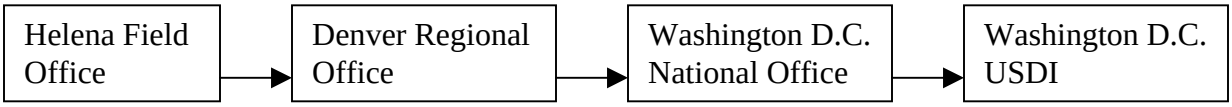
Arctic Grayling Recovery Workgroup
Annual Meeting
February 27, 2007

MEETING NOTES

ESA Update – Doug Peterson (USFWS)
Fluvial Arctic grayling have been an ESA Candidate species for 20 years. They have been warranted for listing but precluded since 1994. In 2002, a lawsuit was filed against the USFWS to make a final listing decision; this lawsuit was settled in August 2005. A final listing determination will be made by April 16, 2007. There are two possible outcomes from this: 1) a negative 12-month finding (not listed), or 2) a proposed rule, which leads to a final rule in April 2007. If grayling are listed, it will be the fluvial form because that was how they were petitioned.

The listing decision-making process hierarchy:



The decision must be reviewed and approved at each level before moving up to the next. As of February 27th, 2006, the decision is sitting in the National Office. With the petition process, options become more limited as final decision date gets closer. In this situation, a proposed rule would have had to been made at least 6-months prior to the final listing date. Because this was not completed, the pre-decisional outcome is a negative 12 month finding. This is not an official outcome until it is published in the Federal Register.
The reason fluvial grayling are a candidate species under the ESA is because they are a DPS. The USFWS highly scrutinizes DPS designations. Fluvial grayling genetics are being analyzed, as they are the most instructive piece of information, although for a DPS designation, there is more information that is reviewed (uniqueness, significance, threats….).

Big Hole River 2006 Summary – Jim Magee (FWP)
Arctic grayling in the Big Hole River are at the southern-most extent of their world-wide range. The Michigan population went extinct in the 1930's. In Montana, grayling were once abundant in the Missouri River, upstream of Great Falls. They currently occupy 4% of their native range. In the 1800's, all of the requirements for a healthy population existed. Since that time, added factors have contributed to the decline in numbers: non-native species introduction, habitat degradation, habitat fragmentation, over–harvest, and climate change. The combination of these factors has put the grayling population at risk to extinction through loss of genetic variability, or a stochastic event.

Grayling distribution within the Big Hole River has also been reduced. Once inhabiting the majority of tributaries and mainstem reaches (1800's), they now exhibit a clustered distribution – correlated with seasonal habitats or tributaries with cool temperatures and good riparian health. Sampling effort has increased over the years; however, grayling abundance has remained very low. Reproduction has been occurring (capture of YOY grayling), but survival to adult age classes is low.

Temperatures: We have an idea of the temperature regimes within the upper Big Hole River, but they are from single points in a large drainage, we need a way to fill in the gaps between thermograph sites. In cooperation with MSU and USFWS, we are pursuing a Thermal Infra Red Flight project that will take place in the summer of 2007. Partial funding is secured.

Increased temperature regimes over the past few years, in addition to habitat improvement in the upper Big Hole, has resulted in brown trout moving upstream in to areas where they have not been sampled historically. Multiple age classes have been sampled in upper reaches indicating reproduction may be occurring.

How do we reverse the current downward trend of grayling distribution and abundance? 1) Research 2) Monitoring 3) Restoration. We need to restore connectivity by addressing habitat fragmentation, thermal and physical barriers, and dewatered areas.

Most of our efforts in the Big Hole are spent on Habitat improvement projects. These efforts take up most of our time because of the many steps and processes involved, such as pre-project data collection, meetings with landowners and agencies, Requests for Proposals, site tours, selection of consultants and contractors, design selection, permitting, fundraising, grant writing, landowner agreements, and contracts.

In 2006, 8 stock water wells, 7 irrigation structures, and 1 fish ladder were installed. Three feedlots were relocated off the river, and 12 riparian areas were fenced or protected through grazing plans. Over multiple years we have completed 2 pool enhancement projects on two of our important grayling tributaries, installed 27 stock water wells, 9 irrigation structures, and 8 fish ladders. We have also protected or enhanced 17 miles of riparian habitat, and moved 3 feedlots.

We face many challenges in our efforts to improve the Big Hole River and the grayling population. Grayling live on private land; therefore working relationships with landowners are imperative. The Big Hole Watershed is large; it will take much time, effort, and resources to improve it. Many different partners and agencies are involved, and coordination is important. Climatic change is occurring and will continue to be an issue that we face in the future.

CCAA Progress Report 2006 – Peter Lamothe (FWP)
The first annual CCAA progress report is available on-line at www.graylingrecovery.org

In August 2006, the USFWS issued FWP an Enhancement of Survival Permit. Enrollment of landowners officially began and is ongoing. Enrollment opportunity is tied to listing. If the fish gets listed, enrollment will close. To date: 22 landowners with 92,277 acres are enrolled in the project area, upstream of Dickie Bridge. These lands are both private (89,277 acres) and state leased lands (3,000 acres). In March 2007 Jim and Pete will make another push in the Big Hole to get landowners to sign-up.

Site Specific Plans (SSPs) will be developed with enrolled landowners to benefit grayling. There are a number of partners involved in writing and implementing SSPs; it is a very large undertaking. Partners involved are: NRCS (writing grazing plans and providing $), DNRC (water rights), USFWS Partners ($ and project assistance), USFWS, FWP, and a number of NGO's are involved as well: BHWC, BHRF, TNC, WWP, TU, MWT, and the Avian Science Center.

The CCAA has 4 conservation measures that will: 1) Improve stream flows 2) Improve riparian habitat 3) Reduce entrainment, 4) Remove barriers to migration. These 4 measures will be addressed in the SSP for each enrolled landowner.

1) Improve Stream flows: This will be accomplished by improving and/or updating irrigation structures, installing stock water wells, and water rights compliance.

2006 Accomplishments:
Jimmy Boetticher, the Big Hole water commissioner monitored and managed 15 PODs on 12 different properties for a net gain of 103.4 cfs returned to the river. The NRCS's EQIP program obligated $645,838 for 38 irrigation structures at 17 sites. FWP replaced 3 headgates, 3 measuring devices and 2 diversions. FWP/USFWSP/NRCS developed 11 off-stream water projects.

2) Riparian Habitat Improvement: This involves an initial riparian assessment and prescribed grazing plan, potentially active stream restoration, and willow planting.

2006 Accomplishments:
Between 40 and 50% Riparian Assessments have been completed for enrolled landowners. Range inventory has been completed on 20,000 acres. Five projects were initiated or completed (Rock Creek, Wisdom/McDowell, Little Lake Creek, Jackson Reach, Landowner initiated projects)

Rock Creek Reconnection: 2.5 miles re-connection to the Big Hole River. Riparian fence was installed with a monitoring plan, and grazing plan. Many partners were involved, and the total project cost was$200,000. Project is complete.

River Restoration of Wisdom/McDowell Section of Big Hole: Restored 7 miles of mainstem habitat in historically important spawning area, installed 3.5 miles of fence, completed a grazing plan, addressed stream bank stabilization, completed a monitoring plan to determine grayling response. Funding is in place for fencing in fall 2007, or 2008.

Little Lake Creek Road Section of Big Hole River Protection Project: Installed 2 miles of riparian fence on 1 mile of river, conducted riparian restoration, and completed grazing and monitoring plans. Future opportunity exists to expand this project. Funding and permits are in place for fall 2007.

Jackson Reach of Big Hole River Habitat Restoration: Accomplishments include: restored 0.75 miles of Big Hole River, Repaired a water-gap, and completed a grazing plan. This project has potential to expand into a larger project.

3) Entrainment
Accomplishments in 2006: Surveyed 42.5 miles of ditch, and 35 points of diversion. Overall, 5 grayling captured and rescued. Fish exclusion devices have been initiated at 4 locations. There are many complicated issues with water rights when it comes to entrainment issues as well.

4) Barriers to Migration:
Accomplishments in 2006: completed a variety of culvert removals and replacements, completed the Rock Creek reconnection project, and installed fish ladders at irrigation diversions.

For 2007 there are 25 additional projects are in the works**.**

Working Groups:
Hub and Spoke (communications group)
Upper Big Hole Watershed Water Rights group
Technical Committee
Entrainment Working Group (prioritize entrainment projects)
Non-Native Working Group

Big Hole River Hydrology and CCAA Efforts – Mike Roberts (DNRC)

In 2006 we had good precipitation and snow pack; however, snow melted off in early May which was 3 weeks earlier than historically. Late August had poor precipitation levels (30% of average). The hydrograph did not show the snowmelt peak at typical time and the river went from 1,900 cfs to 30 cfs in 2 weeks, meaning we did not get the duration of bankfull flows.

DNRC's role in the CCAA includes: hydrologic monitoring, determining water rights compliance, and developing Supplemental Flow Agreements. In 2006, DNRC monitored 400-500 points of diversion, and 15 DNRC water flow stations located in mainstem, tributary and ditches. In 2007, DNRC plans to install at least 6 more monitoring stations.

The Big Hole Watershed is not adjudicated, and many ranchers have little to no control over the amount of water they are taking for irrigation. This means that many are exceeding their water right. Efforts in 2005, and 2006 have confirmed this problem.

Supplemental Flow Agreements will assist with increasing our spring spawning flows, channel maintenance, and late summer flows. The CCAA team will administer these agreements. In 2006, there was a net gain from these agreements of 121.3 cfs in to the river.

River Synoptic Runs: Diversions are being measured to quantify return flows, water loss, and/or seepage. Overall, there have been improvements in water management practices, and the trend we are seeing is that irrigators are using less water. Goals and Tasks for 2007: Install more gages, monitor the irrigation network, continue with synoptic measurements, meet with landowners, SFA's, irrigation management, and install more measuring devices.

CCAA Habitat Projects 2006 Review: Jeff Everett (USFWS PFWP)
What does a Site Specific Plan include? They are as unique as the landowners and operations involved. This creates a complex and time-consuming process. There are many issues on the ground that need to be addressed under the 4 conservation measures listed in the CCAA that Pete went over in detail. We are trying to un-do or fix habitat problems that have been ongoing for many years. For example the difference in willow cover on the mainstem river from 1942 aerial photographs, to 2005. Also streams flowing through feedlots, old vehicles used as rip-rap etc. The Big Hole Valley is a difficult system to work in because of historic events listed above, short growing season for revegetated areas, high altitude, and the river has a small substrate size (D-100 particle size). The main plant species providing bank stability are willows. Examples from some of the first Site Specific Plans completed:

SSP for a ranch at the lower end of the project area: This plan involved coordination between many agencies, has many parts that will make it a viable plan for the rancher, and will create quality grayling habitat. Included in this SSP are: instream restoration and fencing of an important tributary to the Big Hole River, pasture fences, a grazing plan, stock water wells, 3 miles of fence along the mainstem river, irrigation ditch consolidation, fish screens, and movement of a feedlot.

SSP for ranch at the upper end of the project area: this plan included multiple pasture fences for rotational grazing, feedlot removal from the mainstem river, new stock water wells, riparian restoration and fencing, 5 headgate replacements, and potentially 5 new fish screens.

Steel Creek Project completed in 2003: This project involved coordination with Beaverhead County to use willows they remove from county right-of-ways for bank stabilization along Steel Creek. An MOU has been signed between Beaverhead County and the USFWS to continue using excess willows for stream restoration projects.

Fishtrap Creek Project completed in 2004: Low summer flows and lack of pool habitat were limiting in this tributary. A series of pools were created in this creek, and stock water wells have been installed to reduce water withdrawals from the creek.

Governor Creek Project: This project is set to begin fall of 2008. It will remove a fish passage barrier (2 culverts) and replace them with a bridge. These culverts are acting as velocity barriers to upstream fish movement most of the year, and a physical barrier during low flows. This project is in cooperation with Beaverhead County. Funding is being secured.

The cumulative effects of all these projects and the many more to come through Site Specific Plans will improve grayling habitat throughout the Big Hole. Other non-project efforts taking place in conjunction with the CCAA efforts include: Creation of a Most Qualified Vendors List (increase project success), Creation of a willow bank reserve, creating a new coordinating position with the BHWC (Kristina Swanson), multi-year financial commitments with various agencies and funding sources, Jim Boetticher's work as water commissioner, completion of a MOU with Beaverhead County for willows, Arctic Grayling Recovery Plan Revision, other Research, and landowner cooperation.

NRCS 2006 CCAA Review – Kris Berg (NRCS)
The role of the NRCS in the CCAA

1. Riparian Assessments
2. Grazing Plans
3. Feedlot Compliance
4. Cost Share
5. Partnerships in CCAA

1. Riparian Assessments: They act as a benchmark of existing conditions and rate the stream or river based on 10 different factors, which include physical, vegetative processes, and an evaluation of fish habitat. These are used as a basis for the grazing plans. In 2006, 98 miles of riparian assessments were completed. The NRCS will return in 5 years to reassess the riparian areas on streams or rivers.

2. Grazing Plans: Baseline data are collected first including: infrastructure, fences, current grazing practices, livestock watering sites, and forage production. These are all mapped using GIS. NRCS staff meets with the landowners and discuss the baseline data, and then develop a grazing plan that works for their operation. This work will increase the health of the riparian areas, and improve fish habitat. In 2006, 20,000 acres of rangeland were inventoried. One grazing plan has been completed.

3. Feedlot Compliance: Inventory existing feedlots, and create alternatives for feedlots that are not in compliance that meet DEQ and EPA standards.

4. Cost Share Programs: The Environmental Quality Incentives Program (EQIP) offers landowners a 75% cost share on projects that improve habitat. Wetlands Reserve Program (WRP) money will now be available as well. Under WRP, there are 2 perpetual conservation easements (1,200 acres) that will be finalized in 2007.

Special Initiatives: off-site water development, nutrient management, and fencing have been addressed through a 2.5 million dollar obligation since 2004. Enrollment for these

funds is open year-around. So far, 38 irrigation structures at 17 different sites have been addressed through this money that include various fish passage structures, headgates, and measuring devises. Designs are complete for 20 more structures at 8 sites.

Challenges to the NRCS: Obligated 2.5 million, and to complete 26 projects every year. Workload, staff and a small window of installation time in the Big Hole for inventory permitting, and design. Technical Service Providers assisting

2007 Workload: 67 structures at 26 sites, Riparian Assessments on 69 miles, Grazing Plans on 11 ranches (50,000 acres), 2 Landowner feedlot compliance checks, and Complete design on 1,200 acres of WRP land

CCAA Entrainment Surveys 2006 Review – Adam Petersen (FWP)
1,000 of points of diversion exist in the Big Hole = many chances for fish to go down ditches. This could lead to potential "Take" issues with landowners who have grayling in their ditch, many ditches are highly visible because of their proximity to roads. Ditches in Big Hole can reach lethal or stressful thermal regimes for fish. There is sporadic data from 1988-2006 on entrainment into ditches, and grayling have been found in ditches historically. In 2006, the first comprehensive entrainment survey was completed as one part of the 4 conservation measures being addressed in the CCAA. In this assessment 42.5 miles of ditches were and 38 PODs were surveyed. Overall, 5 adult grayling were captured in ditches and returned to the river; however, 2 of the 5 grayling captured were recaptured in another ditch a few days later. To put this in context, 12% of the total number of adult grayling captured in fall population sampling efforts were captured in ditches. These results could be indicative of habitat conditions. For example, in some places in the Big Hole, ditches offer better habitat (more overhanging cover, cooler temps, and narrower channel) than the main river. Ditch habitat varies depending on the amount of flow being diverted, the configuration of the ditch, and the timing of fish movement.

Next Step: Remedy Entrainment through: Habitat improvement in the main river and tributaries, screen diversions, continue entrainment surveys and salvage efforts, and complete landowners supplemental flow agreements.

APIT tag study is being initiated for 2007 to learn more about fish movement. This study is a cooperative effort with an MSU PhD candidate. Part of this study will include grayling movement in to the newly restored and reconnected Rock Creek project.

In summary, the extent and severity of grayling entrainment is largely unknown. The CCAA offers many solutions to the problem, and landowner cooperation will be essential as we learn about entrainment issues in the Big Hole system.

Grayling updates: Ruby, Sun, Madison, and Missouri River, and Sunnyslope Canal – Emily Rens (FWP)
Ruby River: Remote Site Incubators (RSIs) have been successful at producing grayling in the Ruby River. These fish are exhibiting good growth and survival. Stocked hatchery

fish appear to have low survival into adulthood. As the remaining hatchery fish age, their survival rates appear diminished when compared to the 'wild' fish reared in RSIs, as determined by scale analysis. Young-of-year grayling tend to inhabit the upper headwater areas. The larger brown trout inhabit areas farther downstream, from Warm Springs Creek to the Reservoir.

Sun River: Dave Yerk and crew snorkeled the South Fork of the Sun River downstream from the falls. They observed 10 adults and six 8" grayling. No RSIs were used in 2006. Electrofishing was conducted in George Creek in spring of 2006 – 2 grayling were collected.

Madison River: In 2006, the Fletcher Channel (between Ennis and Ennis Lake, downstream of Valley Garden) was shocked on both sides of the River for several days. Seven grayling were captured during these attempts. All fish were males greater than 14 inches.

Missouri River Headwaters: Two electrofishing efforts in 2006 were unsuccessful at capturing grayling. The lower Gallatin and upper Missouri were sampled.

Sunnyslope Canal: In 2006, 279 grayling were captured in the Sunnyslope canal (off of Pishkun Reservoir). Grayling in this unique system are confined to a 3-mile reach that has a series of large pools below a spillway. After this 3-mile reach, the Canal is concrete-lined and is uninhabitable for resident fish, except for a few pools below flumes that are used by over-wintering fish.

Population viability of Arctic grayling in the Gibbon River – Amber Steed (MSU)
Goals of this study were to determine if a viable population of 50 or more fluvial grayling exists in the Gibbon River, and to determine if spawning occurs in the Gibbon River. The river was sampled by electrofishing and angling throughout 2005 and 2006. Fry trapping was conducted in several areas to determine if grayling are actively spawning in the river. No grayling fry were captured. Several reaches with grayling concentrations were noted, and several fish were recaptured, but it is unlikely that the grayling population is 'viable' (50 or more).

Robb Leary commented that the population is an example of a source-sink population. Fish in the river could be thought of as a 'sink' with the lake upstream, considered a 'source', as most fish are likely drop-downs from the lake that cannot return because of several barriers that exist in the river.

The Nature Conservancy: Conservation Efforts - Tim Swanson (TNC)
Tim is the southwest MT Project Manager with a focus on the Centennial Valley. TNC recently purchased the Murphy Ranch in the Centennial Valley. The purchase is part of an on-going effort to preserve the valley's ranching history and rich wildlife habitat. The ranch borders the 45,000-acre Red Rock Lakes National Wildlife Refuge to the south, and TNC plans to eventually sell the ranch to the Refuge. Alaska Basin in the Centennial

Valley was recently sold to a conservation buyer. Conservation efforts on this valley could provide benefit to grayling and other wildlife.

In the Big Hole, TNC has an easement on the Arrow and Dooling Ranch, and TNC is working on easements for the Erb Livestock and Wisdom River Cattle Ranches near Wisdom.

A question was asked how easements work. Tim said that an easement generally means that there will be no subdivisions. An easement does not include restrictions on grazing or grazing practices.

A question was asked how land and easements are purchased. Most money comes from private citizens who donate funds, through TNC's fundraising efforts.

Potential Grayling Reintroduction in Grayling Creek (YNP) - Todd Koel (NPS)
A new bridge will be constructed on Hwy 191, across Grayling Creek in Yellowstone Park. Rather than build a fish-friendly bridge, it may be possible to construct a barrier to migrating fish across Grayling Creek. Grayling Creek could then serve as a site for westslope cutthroat trout and Arctic grayling conservation efforts. Currently, the Creek has westslope-rainbow hybrids. Grayling Creek may have suitable, low-gradient habitat along with cold water and a lengthy migration corridor. Field personnel have not fully investigated the suitability of the Creek, as it is heavy with downfall timber. A site investigation is planned for 2007. Many people expressed interest in attending the site investigation.

A comment was made that Grayling Creek was once noted (1800's) as having a high number of spawning grayling.

Grayling movement in the Big Hole – Shane Vatland (MSU)
Shane is a PhD candidate, studying with Bob Gresswell (USGS) at MSU. Shane reviewed his investigation of the grayling-tagging database that was provided to him by FWP. The recapture data showed patterns of movement by grayling. Of the grayling that were captured in the spring and captured again in the fall of the same year, most had moved downstream. Of the grayling that were captured in the fall and captured the following spring, most had moved upstream. When comparing spring-spring recaps and fall-fall recaps, grayling tended to show strong seasonal site-fidelity.

Shane also discussed plans for a movement study in 2007. He will install 23mm passive integrated transponder (PIT) tags in adult grayling that are captured via angling, trapping, and electrofishing efforts. Three antenna stations will be installed on important tributaries in the Big Hole to passively collect movement data as fish with tags pass the stations. In addition to using three antenna stations to collect movement data, he will use a handheld, mobile-antenna station that is capable of collecting PIT tag information. Additional information will come from electrofishing surveys, as FWP crews will also have handheld PIT tag readers with them during surveys. The study will answer questions

regarding the timing of movement of grayling, and how flows, temps, and habitat quality affect seasonal movement patterns.

Robb Leary commented that more antenna stations would aid in gathering information and answering questions. Robb also said that a more randomized design would benefit the study. Shane said that more extensive mobile surveys (by using the portable antenna) might help to alleviate some of those concerns.

Arctic Grayling Genetics Research Project: Doug Peterson (USFWS)
Doug discussed a potential study entitled, "Genetic evaluation of Arctic grayling in Montana with emphasis on the remnant fluvial population in the Big Hole River". The goal of the study is to determine the ancestry of native and introduced populations of Arctic grayling. A major emphasis of the study is fluvial fish collected from the Big Hole River, and the Big Hole River drainage. An additional component of the study will be determining spatial population structure and potential changes in genetic diversity through time. The study is ongoing and results are pending.

Robb Leary commented on the study, saying that it will be important to recognize potential YOY sibling groups when analyzing the data. If many members within a sibling group are analyzed, the researcher may come to an erroneous conclusion regarding the population, as a whole.

Tim Griffiths asked how many grayling are captured in the spring. Currently, FWP is not doing spawning surveys for grayling; however, YOY fish are captured in the fall and are assumed to have been spawned near their location of fall capture.

Trout Unlimited: Perspectives of ESA Listing – Bruce Farling (MT TU)
Bruce discussed perspectives of the ESA and how a potential listing may or may not benefit grayling. The ESA has been an important tool for wildlife – bears, wolves being prime examples. ESA has been less successful with the recovery of fish species; however, with bull trout and sturgeon being examples. Bruce said that according to the criteria for listing under the ESA, grayling in Montana should be listed. He felt if grayling are listed, there might not be any conservation actions mandated of people by the federal government. If grayling are not listed, there may not be any incentive for people to initiate conservation actions. He thought a beneficial scenario for the fish may be a state of legal uncertainty regarding listing.

Buddy Drake asked how potential litigation might be handled by TU. Bruce said that the national office of TU would make decisions regarding litigation.

A question was raised whether there was a policy within TU regarding listing and petitions to list. Some autonomy exists within chapters. The state chapter of TU or the local chapter of TU could petition to list; however, the state TU or local chapter cannot litigate.

Todd Koel asked whether sportsmen's perceptions of native fish vs wild sportfish could be changed. Bruce mentioned that TU supports native fish restoration and has supported removing nonnative fish populations to benefit natives, when appropriate.

Big Hole Watershed Committee Perspectives of the Big Hole Conservation Efforts - Noorjahan Parwana (BHWC)
The Big Hole Watershed Committee is a diverse group of constituents, including: ranchers, anglers, outfitters, agency people, etc. Therefore, many different perspectives exist. The BHWC started due to concerns over chronic dewatering. The Committee made a forum for communicating amongst its diverse members, and this forum has served well at producing effective communication and beneficial results such as the Drought Management Plan.

The BHWC supports the CCAA for the upper Big Hole. The BHWC has been successful at raising funds to support the CCAA, and at delivering a forum for communication amongst CCAA stakeholders. The BHWC has raised hundreds of thousands of dollars to support conservation efforts in the Big Hole. Numerous habitat restoration projects, irrigation improvement projects, and research projects have been funded through the Committee. In 2006, a federal appropriation of 1.58 million dollars was requested by the BHWC; however, all appropriations are currently under federal review at this time.

To further support CCAA related efforts, the Big Hole Watershed Committee recently hired Kristina Swanson to serve as the Grayling Recovery Support Coordinator. She will work with agency personnel to pursue funding for conservation efforts and to assist with communicating important information between and amongst the various groups. The BHWC also initiated the 'Hub and Spoke Working Group' as a regular forum for communicating information related to conservation efforts in the Big Hole.

CCAA related abandoment legislation – Stan Bradshaw (Western Water Project)
Stan reviewed pending legislation regarding possible water rights abandonment claims that could accompany reduced long-term irrigation withdrawals for conservation purposes. Senate Bill 370 (SB370) was drafted to protect landowners' water rights from claims of abandonment when they enter into long-term agreements to reduce irrigation withdrawals for the purposes of a CCAA. Bill Tash of Dillon is sponsoring the Bill on the Senate side. Debby Barrett of Dillon is sponsoring the bill on the House side. The Bill has received favorable reviews and has been passed by the Senate with a 50-0 vote. The Bill was transferred from the House on February 8th.

If passed, the Bill would ease landowner concerns that CCAA related water right reductions could not be used in the future to establish a claim of abandonment.

Red Rocks Grayling Telemetry Study – Glenn Boltz (USFWS)
In 2005 and 2006 FWS inserted radio tags into grayling to assess movement patterns of fish in lower Odell Creek and the reservoir at lower Red Rock Lake. Goals of the study were to document fish movement and the habitat types used by grayling. In 2005, 7 male grayling and 1 female grayling were fitted with radio tags. In 2006, 6 males and 4

females were fitted with tags and monitored. Most fish used the lower portion of Odell Creek throughout the spring, summer, and fall study period. In the winter, many fish migrated to the lake, near the inlet of Odell Creek, although some fish used lower portions of Odell Creek. Thermograph data revealed that some portions of the lake were warmer than others. Grayling tended to avoid the warmer areas, especially those that reached 70 F or more.

Robb Leary asked whether the fish were considered fluvial or adfluvial. Glenn mentioned that fluvial or adfluvial status would not affect ongoing efforts to conserve the population, so the fluvial/adfluvial debate shouldn't matter.

Red Rock Grayling Population Monitoring Review: Sam Hochhalter (FWP)
Sam reviewed grayling data from the Red Rock population surveys conducted from 1980 – 2006. Grayling sampling efforts have been conducted annually in the spring to sample the spawning population of fish. In general there has been a decline in catch-per-unit effort during that time period. The grayling size composition also appears to be changing to smaller-sized individuals. Sam mentioned a need to find a new water body for the brood source of this population. Paul Hutchinson (BLM) expressed concern that the current brood pond fish may be being 'mined'.

Restoration Plan Update – Jim Magee (FWP)
The Restoration Plan is currently being updated. The Plan will include the conservation of both fluvial and adfluvial life histories of grayling.

Budget Update

Buddy Drake (AGRP) – the budget for AGRP has grown substantially since the beginning of the group, and now incorporates money from a wide range of groups.

Kristina Swanson (BHWC)– BHWC recently applied for, or will apply for, grants from the Bonneville Power Administration, the USFWS Private Stewardship Grant Program, PPL, and the Intermountain West Joint Venture Program

Jeff Everett (USFWS) – Federal funding for grayling recovery may be limited in the years to come, especially through programs like the Private Stewardship Grant Program.

Jim Magee (FWP) – the MOU among agencies for grayling recovery and support expires in June and will be sent out to the various agencies for renewal.

Meeting adjourned at 4:00 PM by Buddy Drake